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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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02/04/2000

Janne Parantainen

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06/29/2004

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EXAMINER

SHAH, CHIRAG G

ART UNIT

PAPER NUMBER

2664

13

DATE MAILED: 06/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/499,009

Applicant(s)

PARANTAINEN ET AL.

Examiner

Chirag G Shah

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/14/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-48 is/are allowed.
- 6) ☒ Claim(s) 1-5 and 49 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-5 and 49 rejected under 35 U.S.C. 103(a) as being unpatentable over Puuskari in view of GSM 04.60.

Referring to claim 1, Puuskari teaches of a mobile communication system having a packet data transmission capability based on a dynamic packet-based QoS mechanism provided by a more static PDP context. Puuskari further discloses on page 2, lines 25 to page 8, lines 13 of a method for transferring a data flow according to a multi-layer protocol including an application layer in which an application is executing, and a plurality of lower level layers (RLC and MAC), the method of transferring data flow by creating a physical connection on a packet radio service (page 8, lines 25 to page 9, lines 25) of a telecommunication system including a network and at least one mobile station (Figure 1 and 2), the physical connection for transferring data packets on a packet data channel (page 8, lines 12 to page 9, lines 18), wherein the data flow of said data packets comprises at least one active data transfer period (claims 1-11), characterized in that the physical connection must be set up and released by setup and release information that defines and signals the set up and release of the physical connection, and

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wherein (page 2, lines 17 to page 3, lines 14, pages 7, lines 29 to page 9, lines 9 and on page 13 lines 9-13). Puuskari discloses on page 12 and figure 2 of a layered protocol structure providing signaling and transferring of information consisting of protocols for controlling and supporting the transmission of plane functions. Puuskari fails to disclose that the physical connection is not released during an inactive period but is released when the setup of the physical connection is signaled from the application layer to the lower layer. GSM 04.60 discloses that the set up and release of the physical connection is defined connection and signaled from the application executing in the application layer to a lower level layer of the multi-layer protocol so that the control event for setup and release of the physical connection are based upon requirements of the application that is executing in the application layer (As disclosed on pages 51 and 52, section 8.1.1.3.2 such that, change of RLC mode shall be achieved through release of on-going TBF and establishment (setup) of a new TBF with the newly requested RLC mode. Furthermore, during an uplink packet transfers, upper layers such as the application layer signal the release and setup of the TBF based on upper layers (application layer) requesting to transfer another LLC PDU with a different priority than the one which is in transfer), and wherein the physical connection is not released during an inactive period (TBF is not released when the application priority has been set as high and if the packets encounter a long delay (or an inactive period) for an open ended-TBF as disclosed, thus indicating that TBF is withheld during transmission of long packets as disclosed on page 51) but is released when the set up of the physical connection is signaled from the application layer to the lower level layer (when network sends a final allocation indication in a fixed allocation assignment message, the physical connection is released as disclosed on page 51, paragraph 3 and in addition, if the new LLC PDU does not

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have the same RLC mode as the current uplink TBF but has a higher radio priority, the mobile station then releases the TBF as disclosed on page 52, section 8.1.1.3.2). Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Puuskari to include the limitation as disclosed by GSM 04.60 in order to establish a high QoS without packet loss.

Referring to claim 2, Puuskari discloses on page 13 lines 9-13 of method according to claim 1, characterized in that the lower level layer that receives said setup and release information from the application executing in the application layer is the radio link control/medium access control (RLC/MAC) layer as claim.

Referring to claim 3, Puuskari discloses on page 2, lines 17 to page 3, lines 14, pages 7, lines 29 to page 9, lines 9 and on page 13 lines 9-13 of the method according to claim 1, characterized in that the lower level layer that receives said setup and release information from the application executing in the application layer is the radio link control (RLC) layer as claim.

Referring to claim 4, Puuskari discloses on page 13 lines 9-13 of a method according to claim 1, characterized in that the lower level layer that receives said setup and release information from the application executing in the application layer is the medium access control (MAC) layer as claim.

Referring to claim 5, Puuskari discloses on page 8, lines 12 to page 9, lines 18 of a method according to claim 1, characterized in that the setup and release information is transferred on the packet data channel as claim.

Referring to claim 49, Puuskari discloses on page 8, lines 12 to page 9, lines 18 of a method according to claim 1, that the set up and release of the physical connection is defined and

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signaled from the application executing in the application layer to a lower level layer of the multi-layer protocol so that the control events for setup and release of the physical connection are based upon requirements of the application that is executing in the application layer.

However, Puuskari fails to explicitly disclose wherein the physical connection is not released during inactive period if the application executing in the application layer is determined to be a specific traffic type application. GSM 04.60 discloses on page 51, 62 and 63 that an opened-ended TBF transfers an arbitrary number of octets. The mobile station is required to send a Packet resource request message for each fixed allocation. GSM 04.60 further more discloses on pages 47, 48, 51, 52, 62 thru 63 that if the new LLC PDU has a higher radio priority (traffic application priority), the mobile station shall complete the transmission of the current LLC PDU using the countdown procedure including acknowledgment from the network, if in RLC acknowledgement mode. The mobile station shall then release the TBF. Thus, implying that when the application priority is high, and if packets encounter a long delay (or an inactive period), the TBF is not released until the all (complete) the PDUs are received and acknowledged. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Puuskari to include the feature as disclosed by GSM 04.60 in order to establish a high QoS without packet loss.

Allowable Subject Matter

3. Claims 9-48 allowed

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4. Claims 6-8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 5/14/04 have been fully considered but they are not persuasive.

Applicant discloses in the remarks that section 8.1.1.1.2 (and Section 8.1.1.3.2) both say that the mobile station will release the TBF after acknowledgement from the network if in RLC acknowledgment mode. Applicant argues that there is no suggestion in those sections of GSM 04.60 that the acknowledgment will be withheld during inactive periods, and thus GSM 04.60 teaches the unnecessary and inefficient release of the TBF during inactive periods. Examiner respectfully disagrees and redirects applicant to pages 51, 3rd paragraph and 52, section 8.1.1.3.2, wherein the physical connection is not released during an inactive period (TBF is not released when the application priority has been set as high and if the packets encounter a long delay (or an inactive period) for an open ended-TBF as disclosed, thus indicating that TBF is withheld during transmission of long packets as disclosed on page 51) but is released when the set up of the physical connection is signaled from the application layer to the lower level layer (when network sends a final allocation indication in a fixed allocation assignment message, the physical connection is released as disclosed on page 51, paragraph 3 and in addition, if the new LLC PDU does not have the same RLC mode as the current uplink TBF but has a higher radio priority, the mobile station then releases the TBF as disclosed on page 52, section 8.1.1.3.2). Therefore,

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claim 1, is rejected based on the limitations suggested and/or taught by Puuskari in view of GSM 04.60.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)305-3988, (for formal communications intended for entry)

Or:

(703)305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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June 15, 2004


Art Patel
Primary Examiner